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## **NOAA BEGINS OPERATIONAL HARMFUL ALGAL BLOOM FORECAST SYSTEM FOR FLORIDA, GULF OF MEXICO**

The National Oceanic and Atmospheric Administration announced today a new ecological forecast system for harmful algal blooms in the Gulf of Mexico that will become operational on Oct. 1, 2004. The system will produce information daily, and forecasts at least twice weekly that will be used to determine the current and future location and intensity of blooms and the likely impacts to the environment. NOAA is an agency of the U.S. Department of Commerce.

"The transition from a research to an operational forecast system supports NOAA's commitment to the improved management, detection and monitoring of harmful algal blooms," said retired Navy Vice Adm. [Conrad C. Lautenbacher](#), under secretary for commerce for oceans and atmosphere and NOAA administrator. "Using observational data for ecological forecast systems shows the value and need for the development of an integrated ocean observing system, one that can assist in addressing the threats to our health and our economy caused by harmful algal blooms."

Harmful algal blooms that occur in the Gulf of Mexico are commonly known as red tides, and are caused by the toxic algae *Karenia brevis*. They are responsible for shellfish closures, fish kills, dolphin and manatee deaths and respiratory distress in people. While these HABs have occurred along the coasts of all five Gulf States, they occur nearly every year on the Gulf coast of Florida.

Since 1999, under a research program designed to develop informational tools to assist coastal managers, NOAA has been working with agencies managing HAB monitoring and impacts in the Gulf of Mexico. Using an advisory bulletin format, NOAA has been providing information to identify HABs before they are reported at the shore, and has provided assessments of the extent of the HABs allowing for more effective sampling and monitoring.

The bulletins are developed by integrating data from various ocean-observing systems, including imagery from commercial and government satellites; meteorological data from NOAA observing stations; and field data collected by state and university monitoring programs. This information is then synthesized and interpreted by an expert analyst, in order to determine the current and future location and intensity of *Karenia brevis* blooms, as well as their potential impacts on humans, marine mammals and fish.

Recognizing the need to provide HAB information on a more consistent basis, NOAA worked to transform the research project into an operational system that will provide daily HAB monitoring and semi-weekly to daily forecasts for the Gulf of Mexico effective Oct. 1. With the new operational system, an analyst will be available to review conditions daily with coastal managers from the Gulf of Mexico states.

The HAB bulletins are used as a tool by state and local managers to guide Florida's monitoring efforts. The effort involves close collaboration with the Florida Fish and Wildlife Research Institute, the Florida Department of Agriculture, the Mote Marine Lab, and NOAA's Florida Keys National Marine Sanctuary.

"This system will alert coastal communities to HAB events so that they can implement protective measures," said [Richard Spinrad](#), assistant administrator of NOAA's National Ocean Service, which developed the system through its National Centers for Coastal Ocean Science office and Coastal Services Center. "The HAB forecast system is one example of NOAA's efforts to provide information and decision

support tools for coastal managers.”

With the improved understanding of HABs developed through the NOAA’s Ecology and Oceanography of Harmful Algal Blooms program and its Monitoring and Event Response for Harmful Algal Blooms effort, the potential for operational forecast systems exists for other US coasts. New capabilities developed through regional observing systems will further aid in improving the detection and forecasts of the blooms. The National Ocean Services’ Center for Operational Oceanographic Products and Services will operate the new HABs forecasting system.

HABs occur in waters of almost every U.S. coastal state, and data suggests that they are increasing in frequency. HABs can damage the health of people and kill marine organisms. HABs also affect economies. Over the last several decades, HABs have caused more than \$1 billion in economic losses in the U.S. They have forced valuable shellfish beds and coastal fisheries to close, affected tourism and service industry revenues, and caused public illnesses.

NOAA is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and providing environmental stewardship of our nation’s coastal and marine resources.

On the Web:

NOAA: <http://www.noaa.gov>

National Ocean Service: <http://oceanservice.noaa.gov>

National Centers for Coastal Ocean Science: <http://coastalscience.noaa.gov/>

Center for Operational Oceanographic Products and Services: <http://tidesandcurrents.noaa.gov/>

Coastal Services Center Harmful Algal Bloom Project: <http://www.csc.noaa.gov/crs/habf/>